What is claimed is:

1. A radiation image converting panel comprising a support having thereon a stimulable phosphor layer containing a polymer and a stimulable phosphor produced by sublimation of a CsBr:Eu precursor, the stimulable phosphor layer having a thickness of 50 μm to 1 mm,

wherein the stimulable phosphor has a spherical shape.

2. The radiation image converting panel of claim 1,

wherein the stimulable phosphor has an average particle diameter of 0.1 to 5 μm.

3. The radiation image converting panel of claim 1,

wherein the stimulable phosphor layer comprises Cs atom in an amount of not less than 10% based on the total weight of the layer.

4. The radiation image converting panel of claim 1,

wherein the stimulable phosphor layer comprises:

(i) CsBr; and

(ii) Eu and an impurity,

an amount of Eu and the impurity being 100 to 1000 ppm by weight based on the total weight of CsBr.

5. The radiation image converting panel of claim 1, wherein the stimulable phosphor is represented by Formula (1):

Formula (1)

$$M^1X \cdot aM^2X' \cdot bM^3X'' : eA$$

wherein M^1 is at least one alkaline metal atom selected from the group consisting of Li, Na, K, Rb, and Cs;, M^2 is at least one divalent metal atom selected from the group consisting of Be, Mg, Ca, Sr, Ba, Zn, Cd, Cu, and Ni; M^3 is at least one trivalent metal atom selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Al, Ga and In; X, X', and X" each represents at least one halogen atom selected from the group consisting of F, Cl, Br, and I; A represents at least one metal atom selected from the group consisting of Eu, Tb, In, Ce, Tm, Dy, Pr, Ho, Nd, Yb, Er, Gd, Lu, Sm, Y, Tl, Na, Ag, Cu, and Mg; and a, b, and e each are numbers satisfying the conditions of $0 \leq a < 0.5$, $0 \leq b < 0.5$, and $0 < e \leq 0.2$.

6. The radiation image converting panel of claim 1,

wherein the stimulable phosphor has a peak at (2,0,2) as a maximum peak measured with X-ray diffraction.

7. A method for producing the stimulable phosphor of claim 1, comprising the steps of:

(i) forming a CsBr:Eu precursor with an emulsified layer method by mixing:

(a) an aqueous solution containing Cs ions, Br ions and Eu ions;

(b) an organic solvent having a different solubility for the Cs ions, the Br ions and the Eu ions; and

(c) a surface active agent;

(ii) isolating the CsBr:Eu precursor, and

(ii) burning the CsBr:Eu precursor to obtain the stimulable phosphor.

8. A method for producing the stimulable phosphor of claim 1, comprising the steps of:

(i) forming an aqueous phase containing Cs ions, Br ions and Eu ions;

(ii) adding an organic phase containing an organic solvent and an surface active agent to the aqueous phase so as to obtain a CsBr:Eu precursor;

(iii) isolating the CsBr:Eu precursor, and

(iv) burning the CsBr:Eu precursor to obtain the stimulable phosphor.

9. A method for producing the stimulable phosphor of claim 1, comprising a step of:

heating the stimulable phosphor between 400 to 700 °C under an atmospheric pressure.

10. A method for producing the radiation image converting panel of claim 1, comprising the steps of:

(i) mixing a stimulable phosphor and a polymer to obtain a coating mixture;

(ii) coating the coating mixture on a support to obtain a coated layer; and

(iii) heating the coated layer under an inactive gas atmosphere so as to dry the coated layer.